

## Pier 1

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San Francisco, California

Project Type:  
Commercial/Industrial

Case No:  
C032015

Year:  
2002



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### SUMMARY

Working with many regulatory and review agencies, Pier 1's developer, a real estate investment trust (REIT) that specializes in industrial properties, converted a pier warehouse into a seismically safe and technologically modern office complex and added more than one acre (0.4 hectare) of public space to San Francisco's waterfront. In the aftermath of the Loma Prieta earthquake of 1989, an elevated freeway that had cut off the city from 3,800 feet (1,158 meters) of its waterfront was demolished, prompting the city to launch a waterfront land use plan that aimed to extend downtown directly to the water's edge. Pier 1 is the first redevelopment project initiated under this ambitious plan. It preserves a historic waterfront landmark for maritime-related use, and symbolizes the transformation of San Francisco's old economy in favor of the new.

### FEATURES

- First major adaptive use of waterfront building in San Francisco harbor
  - Extends city to its edge and ties waterfront activities to downtown
  - Public/private partnership in planning, ownership, and tenancy
  - Implementation of structural and energy-efficient technologies
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- First major adaptive use of waterfront building in San Francisco harbor
- Extends city to its edge and ties waterfront activities to downtown
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### PROJECT ADDRESS

Pier 1  
San Francisco, California 94111

### OWNER/DEVELOPER

AMB Corporation  
Pier 1, Bay 1  
San Francisco, California 94111  
415-394-9000  
Fax: 415-394-9001  
[www.amb.com](http://www.amb.com)

### PUBLIC OWNER

Port of San Francisco  
Pier 1  
San Francisco, California 94111  
415-274-0400  
Fax: 415-274-0528  
[www.sfport.com](http://www.sfport.com)

### ARCHITECT AND INTERIOR DESIGNER

SMWM (Simon Martin Winkelstein Moris)  
989 Market Street  
San Francisco, California 94103  
415-546-0400  
Fax: 415-882-7098  
[www.smwm.com](http://www.smwm.com)

### STRUCTURAL ENGINEER

Rutherford & Chekene  
427 13th Street  
Oakland, California 94612  
510-740-3200  
Fax: 510-740-3340  
[www.ruthchek.com](http://www.ruthchek.com)

#### MECHANICAL ENGINEER

Flack + Kurtz Inc.  
343 Sansome Street  
Suite 450  
San Francisco, California 94104  
415-398-3833  
Fax: 415-433-5311  
[www.flackandkurtz.com](http://www.flackandkurtz.com)

#### GENERAL CONTRACTOR

Nibbi Brothers, Inc.  
1433 17th Street  
San Francisco, California 94107  
415-863-1820  
Fax: 415-863-7488  
[www.nibbi.com](http://www.nibbi.com)

## SITE DESCRIPTION

Until the Great Depression, San Francisco's commercial raison d'être centered on its unique harbor and location as the shipping gateway to the Pacific Rim and the Panama Canal. The San Francisco harbor was situated midway along the U.S. Pacific coast, at the terminus of transcontinental roads and railroads, and near the Gold Rush fields; consequently, it was of strategic importance to industry and the military. In one of the greatest public works projects in American history, the city built the Great Seawall during the mid-1800s to stabilize the harbor's edge, creating the Embarcadero (Spanish for "wharf") district along its entire length to service harbor activities.

The Embarcadero became a nexus for various transportation modes servicing the harbor's shipbuilding, shipping, fishing, and cargo warehousing activities. A street, also called The Embarcadero, and a railroad spur ran parallel to the waterline, separating the downtown commercial district from the industrial harborfront district. In the mid-1960s, reflecting an increasing focus on the automobile as a principal means of transportation, the city further demarcated its downtown from its harbor by building an elevated freeway to funnel traffic from the San Francisco–Oakland Bay Bridge into various parts of downtown. The double-decker Embarcadero Freeway—like Seattle's Alaska Way viaduct; Washington, D.C.'s Whitehurst Freeway; New York City's Westside Highway; and Boston's Central Artery—formed a visual and psychological barrier, even as new activities, such as recreation and entertainment, that raised the value of the waterfront were introduced.

This revitalization trend, started by Fisherman's Wharf during the late 1960s, attracted tourists—about 12 million visits were recorded there in 2000—but tended to separate the working city from its waterfront. For this reason, San Franciscans bitterly opposed the elevated freeway, which was originally planned to connect the Golden Gate and Bay bridges. In response to widespread citizen protest, in the late 1960s the state severely cut back on its plan, turning the unfinished freeway into a truncated connector in the sky between the Bay Bridge and Broadway Street. In 1985, the state approved its demolition.

No progress on the elevated freeway's removal occurred until 1989, when the Loma Prieta earthquake, like the great earthquake of 1906, caused a major transformation in the city. Though relatively undisturbed by the earthquake—unlike the pancaked double-decker freeway in Oakland—the Embarcadero Freeway was finally demolished in 1990 in response to the ongoing protest. Its removal opened up enormous areas of land once occupied by the highway and its on- and off-ramps.

Before the Bay Bridge was constructed in 1936, barges and ferries were the only means of carrying cargo, vehicles, and passengers across San Francisco Bay. In 1898, the Ferry Building was built to serve the 250,000 people from 170 ferry landings that embarked and disembarked each workday at its peak in the 1930s. From the building's location at the intersection of Embarcadero and Market streets, trolleys departed every 20 seconds during the workday. Its 234-foot-high (71-meter-high) clock tower was visible from the opposite end of Market Street, three miles (4.8 kilometers) away, marking the terminus of San Francisco's main street. With the opening of the Bay Bridge, ferry traffic dwindled, and the Ferry Building lost its major activity but kept its iconic status.

The first pier north of the Ferry Building is Pier 1, just 100 yards (91 meters) away. Built as a warehouse and loading dock for the C&H Sugar Company in 1932, the 770-foot-long (235-meter-long) steel-trussed railroad shed, with a footprint of 90,000 square feet (8,361 square meters), sits on a finger pier jutting out into the harbor. A railroad sidetrack ran the length of the warehouse, connecting to the spur along Embarcadero Street.

Pier 1 hosted other uses that shifted with the fortunes of commercial shipping. Before the Bay Bridge era, passenger ferries used Pier 1 for embarkation. A mezzanine was constructed to accommodate passengers. After World War II, cargo handling shifted to containerization, which favored large, open yards available elsewhere along the harbor, over enclosed warehouses. C&H Sugar stopped using Pier 1 in the 1960s, and by 1965, it was being used as a parking garage for downtown commuters in the adjacent financial district at the base of Market Street.

## DEVELOPMENT PROCESS

The Loma Prieta earthquake in 1989 opened up a lot of land in downtown, prompting the city to reconsider its relationship with the historic harbor. Begun in 1990 and completed in 1997, the Waterfront Land Use Plan recommended greater public access, open spaces, and the preservation of views and historic buildings. The plan proposed the redevelopment of 7.5 miles (12 kilometers) of San Francisco's bayfront, beginning with the restoration of the landmark Ferry Building.

The Ferry Building housed the offices of the port authority, which it had occupied rent free since its construction in 1898. The Ferry Building redevelopment was expected to cost \$70 million, during which time the port authority would need to vacate its office space. Further, the port authority would not be able to afford the premium rents—expected to be around \$60 per square foot (\$646 per square meter) at the time—the redeveloped building would command. With these requirements for the port authority's space, it made sense to redevelop the adjacent Pier 1 building first and prepare it for the port authority's use.

Meanwhile, San Francisco–based AMB Corporation had been looking for new office space, as its downtown lease was to expire in 1999. The REIT had redirected its business model to return to its core business of owning and developing cargo and industrial properties in key U.S. transportation hubs, and had sold off nearly \$1 billion in regional shopping centers.

A request for proposals (RFP), issued in January 1998, attracted three bids from Trammell Crow of Dallas; Burnham Pacific, a California REIT; and AMB. In May 1998, AMB and its team of SMWM (architect) and Nibbi Brothers (contractor) reached an agreement to develop the property in exchange for a 50-year ground lease, with the port authority leasing back 52,000 square feet (4,831 square meters) at \$40 per square foot (\$431 per square meter).

AMB won the bid on its offer of an upside potential for the city to participate in the long-term financial success of the redevelopment project. This flexibility reflected AMB's commitment to the project as its corporate headquarters, where the firm could control its own occupancy costs over the 50-year life of the ground lease, and where it had a big stake in the success of the restoration. Another factor was its long-term base in the city, and its track record as a developer in the business of revitalizing industrial buildings.

Because this was the first redevelopment project in the port authority's master plan, there was no template for the development team to use in securing all the approvals necessary for construction to begin. By the end of the short 14-month entitlement process, 21 separate government agencies and public advocacy groups had reviewed the plans.

First, AMB had to gain state approval for commercial use of the building. State law prohibits the residential or commercial use of waterfront properties, though use as offices by maritime operations was permitted. The RFP had assured potential bidders that 30 percent of the project could have nonmaritime uses incidental to maritime offices, but that threshold was inadequate for a profitable venture in Pier 1's case. The developer negotiated with the state to preserve the building as a "maritime resource" by providing public access to the property and by complying with the arduous guidelines necessary to gain historic preservation tax credits. The first step was to list Pier 1 on the *National Register of Historic Places*, completed in 1999, which allowed the developer to obtain 20 percent of the cost of construction in federal tax credits, amounting to over \$8 million of the \$42 million construction cost.

## DESIGN AND CONSTRUCTION

Pier 1's railroad shed structure is fronted on Embarcadero Street by a neoclassical limestone facade, reflecting the signature style of the San Francisco's City Beautiful plan, which was first proposed by Daniel Burnham in 1905, accelerated by the 1915 Panama-Pacific International Exposition, and died with the Great Depression. A heavily articulated arch of rusticated limestone—20 feet (6.1 meters) high at its peak to accommodate the railroad cars that passed through it—marks the entrance along Embarcadero Street. Two bays on each side of the central, arched bay complete the landside facade. Inside, the peaked-roof warehouse is 25 feet (7.6 meters) high at its navelike center.

To satisfy its own pro forma, the developer had to increase the leasable area by at least 50 percent. Creating a second floor by raising the roof not only would have violated the city's 40-foot (12.2-meter) ceiling height restriction in the waterfront zone, but also would have altered the exterior appearance, violating the National Register's guidelines and jeopardizing the tax credits AMB was counting on. The development team instead created an additional 50,000-square-foot (4,645-square-meter) interior area by floating a new partial mezzanine set six feet (1.8 meters) in from the exterior walls, allowing light to penetrate the building width. Another gesture that preserved the architectural character of the original building was the replacement of fixed glazing with operable sash windows, fabricated by the same British manufacturer that supplied the original windows. All new steel joints were bolted, rather than welded, to harmonize with the original riveting technique of steel construction.

In order to exceed the state-mandated restriction that waterfront buildings must be 70 percent occupied by maritime activities, AMB and its development team had proposed that the entire building be considered a "maritime resource." Three means of accomplishing this were proposed. The first consideration, as expected, was the leasing of 52,000 square feet (4,831 square meters), or 34 percent of the gross building area, to the port authority. Design played a part in meeting the other two considerations.

In order to preserve reminders of the pier's maritime history, the original railroad track in the warehouse that was covered over by a new concrete floor was replicated with brass strips, flush with the new floor surface. Parts of it are open to the public in the form of a history walk that starts at a display within the entry foyer beneath the limestone arch. Public access was effected by expanding the public deck areas surrounding the pier warehouse. Negotiations led to all outside deck areas—the three sides that overhang the water—being open to the public at all hours, with the north side closed to the public after dark.

Advanced technologies were employed to ensure compliance with new, strict requirements for seismic improvements, and to condition the interior environment. Because the noncomplying wooden piles that formed the structural support system for the piers could not be braced by driving new piles through the interior without damaging the exterior, 24 new steel piles, each four feet (1.2 meters) in diameter, were driven almost 100 feet (30 meters) into the bay floor at the exterior and tied back to the existing system, at a cost of \$7 million. Where the landside warehouse shed connects to the pier, there is an 18-inch-wide (46-centimeter-wide) seismic separation joint to absorb differences during earthquakes. The extra support system of additional piers at the periphery also helped to increase the public areas surrounding the pier by one acre (0.4 hectare), thereby satisfying the agreed-upon terms to provide public

access to the pier and its views.

Another instance of advanced technology is the design and installation of a closed-loop heat pump, using the water of the bay as a giant heat sink. This system not only was cheaper to install (\$2.3 million, rather than the \$2.5 million a conventional system would have cost based on a ten-year life cycle analysis) and to operate (a 35 percent saving of annual energy costs), but it also allowed the designers to circumvent the need for compressors on the roof or at grade, either of which would have violated historic preservation guidelines and jeopardized the historic tax credits needed to pencil the project out. The heat pump system is used in conjunction with radiant-floor heating pipes embedded in the concrete floors, using gas-fired boilers as an auxiliary heat source.

## FINANCING

A factor in AMB's winning development rights in 1998 was the firm's willingness to complete the project without a need for a construction loan. AMB recaptured some of its equity by financing the \$8 million historic tax credit through Bank of America Historic Ventures, and by taking a commercial mortgage from CIGNA Investments, Inc., based on revenue streams from the property.

## EXPERIENCE GAINED

One of AMB's intentions in entering the Pier 1 redevelopment project was to secure for itself control over tenant costs by building its own corporate headquarters. "We could have moved into another high-rise office building, but our company's entrepreneurial culture favors open-space architecture," says AMB CEO Hamid Moghadam, who sits in open space along with the entire staff. He credits the open layout with improving employee communications and fostering a sense of shared corporate mission. The best view of the Bay was set aside for an 8,000-square-foot (743-square-meter) "company living room and Internet café" for all employees. When privacy is needed, AMB employees can retreat to one of 15 conference rooms, or eight private phone booths.

By working with SMWM, an architecture firm that had built its reputation on historic renovations, and consequently had acquired experience dealing with governmental agencies and groups with interest in historic buildings, AMB learned how to take a complex project through San Francisco's formidable permitting gauntlet. Counted individually, there were 21 local, state, and federal agencies that reviewed one aspect or another of the project, any one of which could have delayed or terminated the project. SMWM's project manager, Michael Bernard, likens the process to "throwing a piece of thread through the eyes of about 12 needles." Nevertheless, obtaining entitlements took only 14 months.

Virtually every development decision was a compromise that benefited private and public interests, the developer and the city. The project could not have gone forward—depriving the city of a precedent-setting, template-forming model waterfront development—without the state Lands Commission's liberal interpretation of AMB's proposal that its provision for public access to the deck surrounding the pier qualified it as a "preservation of a maritime resource." Every step in the development process can be illustrated with a similar "compromise." In tenant affairs, the Port of San Francisco obtained bottom-of-market lease rates, a share in development profits, and new headquarters space, while AMB gained a creditworthy tenant that shared its interest in the project going forward. In design, the mandate to preserve the pier's architectural qualities led to open-space layouts that maximize views from within the interior, promote employee relationships, and create unique and desirable office space in a supply-constrained city.

PROJECT DATA		
LAND USE INFORMATION		
Site area (acres/hectares): 3.1/1.3 Gross building area (square feet/square meters): 140,000/13,006 Net leasable area (square feet/square meters): 140,000/13,006 Parking (on site): none Floor/area ratio: 1.0		
LAND USE PLAN		
Use	Acres/Hectares	Percentage of Site
Building	2.0/0.8	65
Landscaping/open space	1.1/0.4	35
Total	3.1/1.3	100
OFFICE INFORMATION		
Net leasable area (square feet/square meters): 140,000/13,006 Percentage of net leasable area occupied: 100 Number of tenants: 4 Average annual rents (per square foot/per square meter): \$46/\$495 Average length of lease: 10 years Typical term of lease: Triple net		
Tenant	Area (Square Feet/Square Meters)	
AMB Property Corp.	40,000/3,716	
Port of San Francisco	52,000/4,831	
Venture Law Group	38,000/3,530	
Weston Presidio Capital	22,000/2,044	
DEVELOPMENT COST INFORMATION		
Acquisition Cost: None (ground lease only)  Construction Costs: \$37,233,723 Pier substructure: \$6,998,435 Core and shell construction: 16,952,840 Tenant improvements, net of reimbursement: 9,695,600 General conditions: 2,475,680 Bonds, insurance, and city taxes: 224,475 Contractor's overhead and profit: 886,693  Soft Costs: \$12,393,441 Design and construction management fees: \$5,585,581 Testing, permits, and miscellaneous: 1,589,975 City exactions: 1,064,162 Leasing commissions: 419,444 Interest during construction: 3,024,086 Legal and accounting fees: 610,192 Nonrefundable deposit: 100,000  Total Development Cost: \$49,627,164		
DEVELOPMENT SCHEDULE		
Ground lease committed: May 1998 Planning started: May 1998 Sales/leasing started: May 1998 Construction started: August 1999 Project completed: September 2001		

## DIRECTIONS

*From San Francisco International Airport:* Pier 1 is north of the airport, approximately 12 miles (19.3 kilometers) away in the Embarcadero district of downtown San Francisco. From the airport, take the exit ramp toward Interstate 380 West/U.S. Route 101 North/San Francisco/I-280. Merge onto U.S. 101 North. Exit onto I-280 toward Daly City/Port of San Francisco. Continue on I-280 North toward Port of San Francisco. Merge onto I-280 North. Exit at King Street, which merges to become The Embarcadero. Follow The Embarcadero past its intersection with Market Street. To the right is the Ferry Building, and immediately past it, also on the right, is Pier 1.

*Driving Time:* 30 minutes in nonpeak traffic.

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The arched portal was designed so that railroad cars could enter the cargo facility from Embarcadero Street to load bales of sugar shipped in from Hawaii. Today, the portal is a window into the building's adaptive use as a Class A office building, the first along the port of San Francisco's 7.5-mile (12-kilometer) harborfront jurisdiction.



When it was a cargo facility, ships could dock directly alongside the pier building. New steel piers, tied back to the building's existing wood piers as an earthquake-proofing measure, produced a structure that allowed an encircling promenade, which added over an acre (4,000 square meters) of outdoor space for public use. Here, the view back toward downtown shows the towers of the Embarcadero Center beyond.



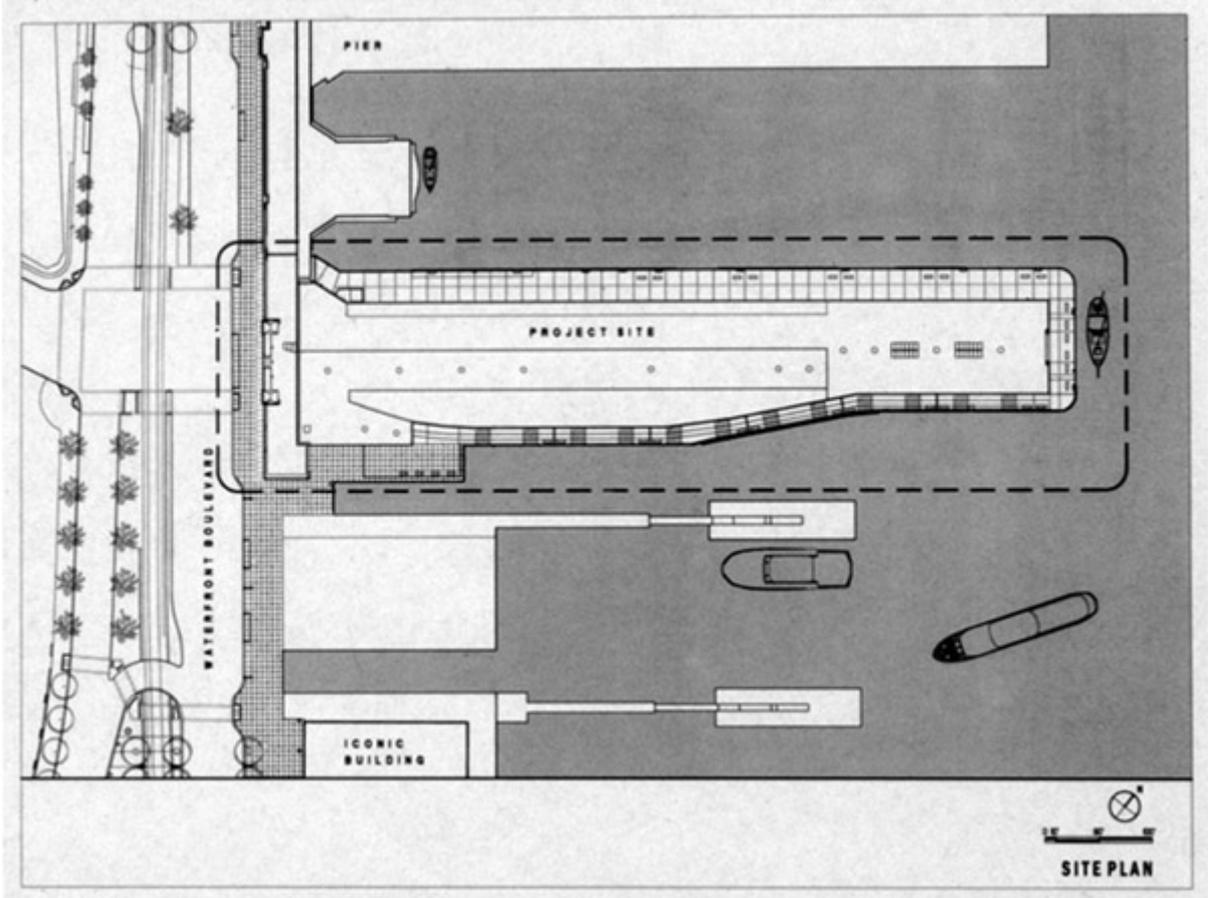
To avoid violating the aesthetic integrity of the exterior wall fenestration, new interior partitions were erected six feet (1.8 meters) in from the perimeter. The versatility of the set-back contrapuntal wall is illustrated here in the door and window openings created to suit, and by the formation of informal spaces for daylight reading along a generous "back" corridor.



The 38-foot-wide (12-meter-wide) navelike center is naturally lit along the entire north and south sides of the 770-foot-long (235-meter-long) space. The steel columns, chorded trusses, and cross-bracing are original; the upper-level mezzanine space is new, adding 50,000 square feet (4,645 square meters) to the building's original 90,000 square feet (8,361 square meters).



pier 1 has water views on three sides. The landside looks back across modern-day Embarcadero Street to the San Francisco skyline through the arched lobby and portal.



Site plan